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35. A NEW COMBINATION IN THE GENUS *MAYTENUS* MOLINA (FAMILY CELASTRACEAE)

Lourteig & O'Donell (De Natura 1, 1955, 188) correctly transferred the genus *Gymnosporia* Hook. f. to *Maytenus* Molina due to the presence of erect shrubs or trees with spines, cymose flowers and ovary confluent with the disc. While working on the FLORA OF BIHAR, it was found that Haines (Bot. Bihar & Orissa 188. 1921) described a variety under *Gymnosporia rufa* Wall. var. *latifolia* Haines, which is now required to be transferred to the genus *Maytenus* Molina. Therefore, the new combination is given below:

Maytenus rufa (Wall.) Hara var. *latifolia*
(Haines) R.P. Bhattacharya, comb. nov.

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March 31, 1999 R.P. BHATTACHARYA
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36. ON THE NUMBER OF FERTILE STAMENS IN FLOWERS OF *BAUHINIA PURPUREA* L. (LEGUMINOSAE: CAESALPINIOIDEAE)

On the morning of November 11, 1998, I casually plucked a few flowers from two trees of *Bauhinia purpurea* L. cultivated side by side on the banks of the river Hooghly, opposite the Public Relation Officer's quarter in Division 4

of the Indian Botanic Garden, Howrah. They had white petals tinged pink, with a reddish colour on some of the veins, and one of them had, surprisingly, 2 fertile stamens instead of the usual 3. I kept a close watch on the flowers

of the two trees for the next few days and found that they had (2-) 3 fertile stamens. Further, a reduced stamen of varying size was also seen in some of the flowers with both 2 or 3 fertile stamens.

This is a new record for *Bauhinia purpurea*. The voucher specimens collected from

the two trees (12.xi.1998, *Bandyopadhyay* 101, 102) have been deposited in CAL.

March 31, 1999

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37. INTERACTION BETWEEN *ACANTHUS* AND SUNBIRDS AT CORINGA IN ANDHRA PRADESH

Acanthus ilicifolius L., (Acanthaceae) commonly called the spiny, or hollyleaf mangrove, is the best-known species in a closely related group of ground flora mangroves. It is reported to be able to cope with almost all conditions within the mangrove. It occurs typically on littoral margins as a sprawling, vine-like shrub. Usually associated with freshwater influence, it is common in the upper and middle reaches of estuarine rivers and other areas in Coringa, Andhra Pradesh, India.

Acanthus leaves are yellow-green with a margin that is usually, but not always serrate, and prickly. The leaf is glossy, stiff, oblong and lobed, with a short petiole. The flowers are blue with a purple hue. They secrete nectar from a ring at the base of the ovary. The large trilobed lower lip of the corolla forms a landing stage for pollinators. The four stamens surrounding the style have strong filaments, which can only be forced apart by large and powerful biotic vectors. When this occurs, pollen is shed from the anthers onto the vector's body; the receptive stigma also gets powdered with pollen. In effect, self- or cross-pollination takes place. The separated staminal filaments gain their original position when the insect departs. The flowers receive multiple visits because of their original viability and shape. It seems that this floral mechanism is intended for multiple visits so that the legitimate pollinators can effect pollination.

The sunbird species, namely, *Nectarinia asiatica* and *N. zeylonica*, and also large carpenter bees of the genus *Xylocopa* forage for the nectar of *Acanthus* flowers. The birds land on the flowering branch and insert their bill through the staminal column surrounding the style, while the bees use the lower lip of the corolla for landing before probing the flowers like sunbirds. However, sunbirds regularly visit the flowers till they are available. The birds exhibit territoriality by chasing away the intruding bees to exploit the floral source profitably.

Acanthus grows abundantly in the area and serves as a potential nectar source for the sunbirds for 3-4 months from May to August. The interaction between *Acanthus* flowers and sunbirds is symbiotic, and ensures the survival of both partners in the mangrove habitats. However, the occurrence of sunbirds is also dependent on plant species that bloom (and provide nectar to birds) outside of the flowering season of *Acanthus*, as appears to be in the case of *Leonotis nepetifolia* (Aluri and Reddi 1994; Aluri 1998).

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